REGISTRY REPORT
West Central Phoenix - North Plume

I. INTRODUCTION

This Site Registry Report for the West Central Phoenix North Plume Site is prepared to meet the requirements established in Arizona Revised Statutes (A.R.S.) §49-287.01.

II. BACKGROUND

The West Central Phoenix (WCP) Water Quality Assurance Revolving Fund (WQARF) Project Area was placed in the WQARF Priority List in 1987. Data obtained after the site was placed on the WQARF list indicated three primary areas of VOC contamination: the "Main Plume Area," the "WCP North Plume Site" and the "Southeast Area."

To date, ADEQ has conducted investigations at the following facilities in the WCP North Plume Site:

1. Facility located at 4316 N. 39th Avenue

In 1989, soil and soil-gas sampling was conducted at the site. Soil-gas samples found several volatile organic compounds (VOCs) including tetrachloroethylene (PCE), trichloroethylene (TCE), 1,1-dichloroethylene (1,1-DCE), 1,1,1-trichloroethane (TCA) and benzene. Soil samples found PCE and toluene. As a result of this investigation, additional investigations were conducted between 1990 and 1992 by the site owners. Additional soil sampling at the site discovered that PCE had leaked from a degreaser into the soil under the building. A soil sample collected at approximately 5 feet below the degreaser had PCE concentrations of 5,400,000 micrograms per kilogram (µg/Kg). Concentrations of PCE found beneath the vapor degreaser from samples at depth ranged from 170 µg/Kg to 710,000 µg/Kg. The groundwater samples have found that groundwater beneath the degreaser contains high concentrations of PCE (up to 150,000 micrograms per liter or µg/L). Other contaminants, such as TCE and TCA, have also been detected in groundwater samples, but at significantly lower concentrations (less than 8 µg/L).

Additional information regarding this facility is found in the WCP files under the facility file name of F&B Mfg. Co.

2. Facility located at 4115 W. Turney Avenue

In 1991, soil and soil-gas sampling was conducted at the site. VOCs such as 1,1-dichloroethane (1,1-DCA), 1,1-DCE, cis-1,2-DCE, PCE and TCA were detected beneath the site, specifically from an area selected for sampling because of its proximity to the concrete sump in the former drum "Filling Area". Subsurface soil samples collected at a depth of 17 feet below land surface near the "Filling Area" contained 1,1-DCA, cis-1,2-DCE, and TCA. Surficial soil samples in the "Tank Farm Area" also contained toluene, ethyl benzene, and xylenes.

During the Fall of 1994, soil samples and groundwater samples using the Hydropunch method were collected by the site owners. Acetone (up to 110,000 µg/L), methylene chloride (up to

13,000 µg/L), toluene (up to 3,600 µg/L), PCE (up to 60 µg/L), TCE (up to 480 µ/L) and TCA (up to 16 µg/L) were all detected in the groundwater. Degradation products of PCE and TCE that have been detected in the groundwater include cis-1,2-DCE (up to 250 µg/L), 1,2-DCA (up to 1.3 µg/L), 1,1-DCE (up to 150 µg/L) and vinyl chloride (up to 26 µg/L). Degradation products of TCA that have also been detected in the groundwater include 1,1-DCA (up to 380 µg/L) and 1,1-DCE.

Additional information regarding this facility is found in the WCP files under the facility file name of Rinchem Co.

3. Facility located at 4450 N. 42nd Avenue

In 1989, soil and soil-gas sampling was conducted at the site. Soil-gas samples found several volatile organic compounds (VOCs) including PCE, TCE, 1,1-DCE, and TCA. A soil sample found PCE, TCE, 1,1-DCE, TCA, 1,1-DCA, toluene and total xylenes. In November 1995, soil samples and groundwater samples using the Hydropunch method were collected by the site owners. Soil samples collected from the former solvent packing area and the drum loading area contained maximum concentrations of TCE and PCE of 32 µg/Kg and 31 µg/Kg, respectively. Groundwater samples collected beneath the site using the Hydropunch method contained concentrations of TCE, PCE, and 1,1-DCE. Concentrations of TCE ranged from 2.6 to 86 µg/L; concentrations of PCE ranged from 3.3 to 72 µg/L; concentrations of 1,1-DCE ranged from 3.8 to 29 µg/L.

Additional information regarding this facility is found in the WCP files under the facility file name of Hill Brothers Chemical Co.

4. Facility located at 4330 N. 39th Avenue

In 1993, soil and soil-gas sampling was conducted at the site. Soil-gas samples showed 1,1-DCE at a maximum concentration of 2,700 µg/L in the west side of the site, between the former wastewater treatment unit and the western site boundary. PCE was detected at a maximum concentration of 560 µg/L in the southeastern corner of the site. TCE, benzene, toluene, methylene chloride, chlorobenzene, and ethylbenzene were also detected above the background levels but at concentrations lower than PCE and 1,1,-DCE. Surficial soil sampling for metals showed concentrations of beryllium and lead above the Health-Based Guidance Levels for Arizona. The sampling for VOCs was not completed.

In 1995, ADEQ's contractor performed soil sampling at the site. PCE was detected in two samples in the same area with the highest concentration of PCE in the soil-gas samples collected by ADEQ. Soil samples exhibited PCE concentrations of 80 and 120 µg/kg, respectively. No VOCs were detected in the soil samples collected from boreholes drilled in the area with the highest concentration of 1,1-DCE in the soil-gas samples collected by ADEQ.

Additional information regarding this facility is found in the WCP files under the facility file name of Pyramid Industries-39th Avenue.

5. Facility located at 4020 W. Glenrosa Avenue

A groundwater remediation program was implemented at the facility in 1986 due to a petroleum hydrocarbon release form an underground storage tank. Over 30 monitor and recovery wells have been installed on the facility since 1986.

In 1992, analytical results indicated VOCs in groundwater samples from twelve of the 20 monitor wells sampled at the site. Seven monitor wells with detectable VOCs in the groundwater are located along the eastern and western portions of the site. The VOCs detected in these wells include TCE, 1,1-DCE, and PCE with maximum concentrations of 11.5 µg/L, 43.7 µg/L and 37.1 µg/L, respectively. In 1997, the maximum detected concentrations of TCE, 1,1-DCE, and PCE were 11 µg/L, 150 µg/L and 3,200 µg/L, respectively.

In the central portion of the site in 1992, 1,2-DCA and TCA were detected at maximum concentrations of 119 µg/L and 10.6 µg/L, respectively. In 1997, TCE was detected at a maximum concentration of 11 µg/L in one centrally located well (MW-28).

Additional information regarding this facility is found in the WCP files under the facility file name of City of Phoenix Glenrosa Service Center.

III. PUBLIC HEALTH ISSUES

So far, testing in the WCP area indicates almost no chance of human contact with the contamination. Sampling shows that the contaminated soils are under asphalt parking lots or asphalt-surfaced storage areas, or under the concrete floors of buildings. Contaminated drinking water wells in the area have been shut down.

Although there is very little chance people will have contact with the contaminants, the Arizona Department of Health Services (ADHS) will conduct Health Risk Assessments at sites where Remedial Investigations/Feasibility Studies (RI/FSs) are being conducted to evaluate potential health risks. The contaminants found in the groundwater in the WCP area and at the WCP North Plume site are classified as probable human carcinogens because some studies have shown they cause cancer in some animal species.

IV. E&E SCORE

Based on the most current information, the current E&E score for the WCP North Plume Site is 50.

V. LIMITATIONS

This Site Registry Report (SRR) is based upon information available as of the date shown. The SRR is intended as a historical document meeting the public notification requirements of A.R.S. § 49-287.01 (B) and (D). Site boundaries depicted on the attached Site Boundary Map represent ADEQ's interpretation of data available at the time the map was constructed. The map is intended to provide the public with basic information as to the estimated geographic extent of known contamination as of the date of the SRR. The actual extent of contamination may be different. Therefore the geographic boundaries for this site may change in the future as new information becomes available.

An updated SRR and associated Site Boundary Map will not be issued. As new information becomes available it will be made available for public review through placement in the public file.